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ABSTRACT

In 1985-86, the first year of a three-year funding cycle, Project PAN provided bilingual instruction in two New York City high schools, John Bowne and Newtown. The project reached 355 students of Chinese/Vietnamese, Korean, Pakistani, and Indian origin, most of whom had recently arrived in New York and were of limited English proficiency (LEP). Project PAN provided instruction in English as a second language, native language arts, and bilingual instruction in science, social studies, typing, and career orientation. A transitional program emphasizing the successful integration of students into their newly-adopted society, Project PAN was designed and implemented to achieve bilingualism for both LEP students, who learned English and their native language, and English proficient students, who learned the language of their ethnic group. Title VII funded most of the project's administrative and support-services position, and instructional services were funded by tax-levy and other sources. Staff development and parent participation activities were an important component of the program. An end-of-year achievement examination revealed that students had met project goals for mastery of English language and other subject areas. It is recommended that additional bilingual classes in science and social studies be added at John Bowne. (KH)

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PROJECT PAN

1985-1986

OEA Evaluation Report

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O.E.A. Evaluation Section Report

Robert Tobias, Administrator of Evaluation
Judith S. Torres, Senior Manager

Grant Number: G00-852-5049

PROJECT PAN

1985-1986

Project Director:
Margaret Pan-Loo

Prepared by the
O.E.A. Bilingual Education Evaluation Unit

Armando Cotayo, Evaluation Manager
Jose J. Villegas, Evaluation/Planning Specialist
Shelley M. Fischer, Evaluation/Planning Specialist
Margaret H. Scorza, Editorial/Production Coordinator
Pat Yang, Evaluation Consultant
Eulalia Cabrera, Evaluation Consultant

New York City Public Schools
Office of Educational Assessment
Richard Guttenberg, Director

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A SUMMARY OF THE REPORT

In its first year of a three-year funding cycle, Project PAN provided 355 ninth- through twelfth-grade students of Chinese/Vietnamese, Korean, Pakistani, and Indian origin instruction in English as a second language (E.S.L.) and native language arts; bilingual instruction in science, social studies, and typing; and career orientation. Two hundred eighty-five were of limited English proficiency (LEP), and 70 were English proficient (EP). The program operates at two sites: John Bowne High School, in Flushing, and Newtown High School, in Elmhurst. Most of the participants had recently arrived in New York City. Their educational backgrounds varied widely, with some students academically well prepared and others knowing no English.

Project PAN is a transitional program which emphasized the successful integration of students with their newly-adopted society. It was designed and implemented to achieve bilingualism for both LEP students, who learned English and their native language, and EP students, who learned the language of their ethnic group.

Title VII funded most of the project's administrative and support-services positions; instructional services were funded by tax-levy and other sources. A Parent-Student Advisory Committee, school activities, and program-sponsored E.S.L. classes encouraged parental interest and involvement in their children's academic lives. Staff development activities consisted of monthly meetings, on-site workshops and lectures, and city, state, and federal conferences and workshops. Staff members also took courses at local colleges. Curricula and educational materials were developed in the subject of horticulture in Korean, Chinese, and Urdu and in science teaching with an E.S.L. approach. An Urdu-Hindi language assessment test also was developed. The project's support services provided personal and academic counseling, career and college advisement, tutoring, and referrals to outside services.

Students were assessed in English language development (Criterion Referenced English Syntax Test [CREST]); mastery of the native language (teacher-made examinations); understanding of science and social studies (teacher-made examinations); and skill in career subjects (teacher-made examinations). Quantitative analysis of student achievement data indicates that:

-- Overall, elementary and intermediate level E.S.L. students tested at Levels 1 and 2 of the CREST mastered over one CREST objective per month of instruction in the fall and spring. Advanced E.S.L. students tested at Level 3 mastered over 0.5 CREST objectives in the fall and spring. The program objectives were thus met.

-- The targeted EP group met the proposed 70 percent passing objectives in English- and second-language courses.

-- The 70 percent passing criterion for LEP students enrolled in native language arts, science, social studies, and career courses was surpassed both semesters.

The recommendation to improve the project is to form additional bilingual classes in science and social studies, if resources and numbers of students permit, at John Bowne High School.

ACKNOWLEDGEMENTS

The production of this report, as of all Office of Educational Assessment/Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of permanent staff and consultants. In addition to those whose names appear on the cover, Arthur Lopatin has edited the reports following the O.E.A. style guide and has written report summaries. Finally, Marcia Gilbert, Bruce Roach, Bill Russell, and Martin Zurla have worked intensely as word processors to produce and correct reports. Without their able and faithful participation, the unit could not have handled such a large volume of work and still produced quality evaluation reports.

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PROJECT PAN

Location:	John Bowne High School 63-25 Main Street Flushing, New York 11367 Newtown High School 48-01 90th Street Elmhurst, New York 11373
Year of Operation:	1985-1986, First year of funding
Target Languages:	Chinese/Korean/Vietnamese/Urdu-Hindi
Number of Participants:	350 students each semester
Project Director:	Dr. Margaret Pan-Loo

I. DESCRIPTION

OVERVIEW

In its first year of funding, Project PAN operated at two sites in Queens: the primary resource site at John Bowne High School, in Flushing, and the secondary site at Newtown High School, in Elmhurst.

In 1985-1986, the project served 350 students each semester. Five students left the program and five new ones entered in the spring, so that the total number of students served for the year was 355. Of these 355 students, 285 were of limited English proficiency (LEP) and 70 were English proficient (EP). The LEP students were placed in the program on the basis of interviews, evaluations of transcripts, parental requests and/or permission, and scores below the twenty-first percentile on the English version of the Language Assessment Battery (LAB). The EP students were selected by the project director and the school principals from a pool of students enrolled in regular English classes who wanted to learn the language and culture of their ethnic group.

Project PAN's goal was to provide an instructional program that would

develop bilingualism in both LEP and EP students. The students learned a second language through computer-assisted instruction and the integration of substantive cultural content into their second-language classrooms. Other project activities that facilitated the students' learning of a second language were the pairing of EP and LEP students for peer tutoring in each other's second language, and the field trip component in which LEP and EP students practiced the second language in real-life settings.

PROGRAM ORGANIZATION

Project PAN had nine staff members: a project director, a Korean bilingual resource specialist, a Chinese curriculum specialist, a bilingual guidance counselor/grade advisor, a bilingual family assistant, a Korean educational assistant, two Chinese educational assistants, and a bilingual school secretary. All were certified in their specialty.

The project director coordinated funding and administrative activities and conducted orientation and training workshops for project staff members and teachers.

The two curriculum/resource specialists developed bilingual materials and also served as resources for other staff members on the languages, histories, and customs of the students' various ethnic communities. The guidance counselor/grade advisor helped students with career and academic problems. The family associate assisted the guidance counselor/grade advisor in contacting the families of project students. She also helped with translation, interpretation, and other routine school matters.

The educational assistants at both sites assisted teachers in the classrooms, provided small-group and individual tutorial assistance, and participated in curriculum-development work.

II. STUDENT CHARACTERISTICS

The largest group of program students (44 percent) were native speakers of Mandarin, Cantonese, and other Chinese dialects. Over two-thirds of the Mandarin speakers were born in Taiwan; the remainder were born in the People's Republic of China. The Cantonese speakers were born in the People's Republic of China, Hong Kong, and Taiwan. A majority of the speakers of other Chinese dialects were born in Vietnam. The second and third largest groups of program students were Korean (35 percent), and Urdu-Hindi speakers (18 percent). The Urdu-Hindi speaking group was made up of students born in Pakistan and India. Urdu is a language spoken in Pakistan and Hindi is a language spoken in India; however, the languages are mutually intelligible with only minor differences in vocabulary. Table 1 presents the numbers and percentages of students by language and country of birth. Table 2 lists the number and percentages of students by sex and grade.

The educational backgrounds of the students in the program varied widely. Those from Hong Kong, Taiwan, and South Korea were well-prepared, especially in mathematics, but those from Mainland China and Vietnam were not. A large number of mainland Chinese students came from rural areas of the Four Counties in Guandong province. Before emigrating to the United States, some had lived in Hong Kong, where their need to work full-time left little opportunity for schooling. In fact, 46 percent of the students were overage for their grades (see Table 3).

The educational background of Korean students was more homogeneous, but like the Chinese students, most were from low-income families.

Twenty-five students were reported to have left the program in 1985-86. Of these students, ten transferred to another school, and 11 dropped out. The remainder left for full-time employment or returned to their native countries.

TABLE 1

Number and Percent of Program
Students by Language and Country of Birth

Language	Country of Birth	Number	Percent
Korean	Korean	123	35
Mandarin	Taiwan	44	12
	People's Republic of China	18	5
Cantonese	People's Republic of China	34	10
	Hong Kong	25	7
	Taiwan	2	*
Other Chinese Dialect	Vietnam	39	11
	Cambodia	2	*
	People's Republic of China	1	*
Urdu-Hindi	India	35	10
	Pakistan	30	8
Thai	Thailand	1	*
TOTAL		354	100

*Less than one percent.

- Forty-five percent of the program students speak Mandarin, Cantonese, and other Chinese dialects. Most of the students in this group were born in Taiwan, Vietnam, and the People's Republic of China.
- The second largest group of program students were born in Korea. They are native speakers of Korean.
- The third largest group were speakers of Urdu-Hindi languages. These students were born in India and Pakistan.

TABLE 2

Number and Percent of Project Students
by Sex and Grade

	John Bowne		Newtown		All Students		
Grade	Male	Female	Male	Female	Male	Female	Total
9	13	10	32	26	45	36	81
10	30	47	55	53	85	100	185
11	28	31	6	9	34	40	74
12	7	8	--	--	7	8	15
Total Number	78	96	93	88	171	184	355
Percent By Sex	45	55	51	49	48	52	

- Forty-eight percent of all program students are male; 52 percent are female.
- The number of students was lowest in grade twelve; most students were in the ninth and tenth grades.

TABLE 3

Number of Program Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
13	0	1	0	0	1
14	10	3	0	0	13
15	28	41	2	0	71
16	22	60	12	0	94
17	10	37	27	1	75
18	6	26	19	7	58
19	4	9	7	1	21
20	1	5	4	4	14
21	0	2	1	2	5
22	0	0	1	0	1
TOTAL	81	184	73	15	353
Overage Students					
Number	43	79	32	7	161
Percent	53	43	44	47	46
Newtown High School					
Number	34	48	5		87
Percent	59	45	36		49
John Bowne High School					
Number	9	31	10	7	57
Percent	39	40	17	47	33

Note: Shaded areas indicate expected age for grade.

- Forty-six percent of the project students were overage for their grade.
- The highest percentage of overage students is in grade nine (53 percent).
- The highest percentage of overage students occurred at Newtown (49 percent).

III. OBJECTIVES AND FINDINGS

The evaluation findings for the 1985-86 academic year include both objectives measurable by standardized test results and those based on an examination of program material and records, site visits, and interviews with relevant personnel. The findings are presented by the objectives proposed to and accepted by the Office of Bilingual Education and Minority Languages Affairs, U.S. Department of Education.

ENGLISH AS A SECOND LANGUAGE FOR LEP STUDENTS

-- As a result of participating in the project, at the end of the school term, LEP students at the elementary and intermediate levels of E.S.L. will master an average of one objective per month as measured by pre- and post assessment with Levels 1 and 2 of the Criterion Referenced English Syntax Test (CREST).

-- As a result of participating in the project, at the end of the school term, LEP students at the advanced level of E.S.L. will master an average of 0.5 objectives per month as measured by pre- and post assessment with Level 3 of CREST.

A member of the evaluation team visited an E.S.L. class at Newtown that contained both Chinese and Korean LEP students. Using "school" as the topic of discussion, the students were learning simple verbs. The teacher used many role-playing and pairing-interaction techniques. Slower students were helped by a paraprofessional.

The program proposed to offer students computer-assisted E.S.L. instruction and to integrate substantive subject matter with E.S.L. classes. During the project's first year of operation, twelve microcomputers were provided for project students at Newtown High School. An educational assistant, who specialized in computer science, was also available to help the students. Concerning the integration of subject matter with E.S.L., teachers said they planned to introduce science and social

studies only in the higher-level classes; in lower level ones the learnirg of everyday English would be stressed.

To enhance students' E.S.L. and native-language learning, the project included biweekly tutoring between EP and LEP students in each other's second language and in subject areas. At John Bowne, members of the evaluation team visited a tutoring session taking place in a class of 21 students. They were impressed by the enthusiasm with which the students helped each other; however, no Cantonese-speaking students participated in this session. In addition, EP and LEP students joined in field trips and other extracurricular events. This year, two field trips were arranged to Longwood Garden, Pennsylvania. Students who had participated in the trips told the observers that they were the most memorable events they had experienced since coming to this country.

LEP Student Achievement in E.S.L.

The instrument used to assess student achievement in this area was the Criterion Referenced English Syntax Test (CREST),* administered at the beginning and end of each semester.

Table 4 presents the test results for all PAN students who were pretested and posttested with the same CREST level. Of the students who

*The Criterion Referenced English Syntax Test (CREST) was developed by the Board of Education of the City of New York to measure mastery of instructional objectives of the E.S.L. curricula, and thus was constructed to maximize content validity. The test contains four items per curricular objective, and mastery of an objective is achieved when three of these items are answered correctly. The test measures mastery of 25 objectives at Levels 1 and 2, and 15 objectives at Level 3. The Kuder-Richardson reliability estimates for pretest and posttest administrations of the three levels of the CREST are:

Level 1 -- pretest (.91)/posttest (.96)
Level 2 -- pretest (.94)/posttest (.95)
Level 3 -- pretest (.91)/posttest (.91).

were reported to be taking E.S.L. classes (levels 1, 2, and 3), complete data (levels, pretest score, and posttest score) were available for 273 students (78 percent) in the fall and 260 students (75 percent) in the spring. CREST results for each participating school have been included as Appendix A.

Examination of Table 4 reveals that elementary and intermediate level E.S.L. students (students tested at Levels 1 and 2) mastered more than one CREST objective per semester, and that advanced E.S.L. students tested at Level 3 mastered more than 0.5 CREST objectives in the fall and spring. The program objectives in this area were thus met.

TABLE 4

Results of the Criterion Referenced English Syntax Test

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY Mean	MASTERY S.D.	Mean Mastery Per Month
				FALL				
1	109	13.6	6.9	17.4	6.6	3.8	3.4	1.2
2	99	14.7	6.1	18.6	5.5	3.9	2.7	1.2
3	43	9.8	2.9	11.8	2.8	2.0	1.4	0.7
TOTAL	251	13.4	6.3	16.9	6.1	3.5	3.0	1.1
				SPRING				
1	81	16.1	7.2	19.7	5.5	3.6	3.7	1.1
2	100	14.5	6.5	18.3	5.9	3.8	2.7	0.8
3	73	11.0	2.9	12.7	2.2	1.7	1.6	0.6
TOTAL	254	14.0	6.3	17.1	5.7	3.1	3.0	1.0

- PAN students tested at Levels 1 and 2 averaged mastery of over one CREST objective both semesters. Overall, students tested at Level 3 mastered over 0.5 CREST objectives. The program objectives were thus met.

ENGLISH LANGUAGE PROFICIENCY OF EP STUDENTS

-- As a result of participating in the project, at the end of the school term, it is expected that at least 70 percent of the targeted EP group will exceed the passing criterion of 65 percent in their English language classes.

Passing rates in English language classes were reported for 70 EP students in the fall and for 58 EP students in the spring. Of these students, 88 percent achieved passing grades each semester, thus surpassing the program objective.

NATIVE LANGUAGE ARTS FOR LEP STUDENTS

-- As a result of participating in the project, at the end of the school term, it is expected that at least 70 percent of the targeted LEP students will exceed the passing criterion of 65 percent in native language classes.

Four levels of Korean and eight levels of Chinese were offered at Newtown. Two Chinese classes and one Korean class were offered at John Bowne. The Urdu-Hindi speakers at both sites could not receive native-language instruction because the program's only Urdu-Hindi-speaking staff member had left the program. Members of the evaluation team observed two Chinese classes and one Korean class at each site.

LEP Student Achievement in Native Language Arts

The overall passing rate for the 128 students who were reported as enrolled in native language classes in the fall was 86 percent. Of the 133 students enrolled in the spring, 93 percent passed their courses. The stated objective was thus surpassed both semesters.

SECOND-LANGUAGE LEARNING FOR EP STUDENTS

-- As a result of participating in the project, at the end of the school term, it is expected that at least 70 percent of the targeted EP group will exceed the passing criterion of 65 percent in their second-language classes.

The EP students attended either Chinese- or Korean-language classes with the LEP students. Participating in peer-tutoring and taking trips with LEP students provided valuable supplements to their classroom learning.

EP Student Achievement in Second Language

Passing rates were reported for 16 EP students enrolled in second-language classes in the fall and 22 students enrolled in the spring. Overall, 92 percent of these students achieved passing grades, thus surpassing the program objective.

ACADEMIC SUBJECTS

-- As a result of participating in the project, at the end of the school year, at least 70 percent of the LEP participants will achieve a passing rate of 65 percent or higher on teacher-developed final examinations in science and/or social studies.

At Newtown, there were two bilingual science and two bilingual social studies teachers. Because one teacher in each subject area knew Cantonese and the other knew Mandarin, sections in both subjects could be taught in both dialects. A member of the evaluation team who visited a Cantonese social studies class and a Mandarin science class observed that, with the aid of translated materials, the bilingual teachers used both English and the students' native dialect.

On the other hand, at John Bowne only one Chinese bilingual teacher was available to teach bilingual science, and no bilingual teacher was

available to teach social studies. Thus, there appeared to be a need for additional bilingual science and social studies classes; many students who were interviewed complained that they did not understand what was being taught in the mainstream science and social studies classes. They had to rely heavily on the bilingual tutoring staff, who tried their best to satisfy the students' requests but were tremendously overworked.

Student Achievement in Science and Social Studies

The overall passing rate of the 78 students who were reported as enrolled in science courses in the fall was 81 percent. Of the 68 students enrolled in spring science courses, 91 percent received a passing grade. In fall social studies courses, 84 percent of the 104 students enrolled passed, and 93 percent of the 68 students enrolled passed in the spring. The proposed objective was thus surpassed in both content areas both semesters.

CAREER SUBJECTS

-- As a result of participating in the project, at the end of each school term, 70 percent of the students participating in the career courses or activities will improve their knowledge of careers by either

    1) passing teacher-made tests in instructional units related to the above areas or

    2) achieving a satisfactory rating in the mastery of job-related activities (such as interview skills, writing a resume, designing an ornamental flower arrangement, etc.).

The career subjects offered by the program included typing, word processing, and horticulture. The program's curriculum/resource specialists provided appropriate bilingual materials for use in these classes.

Student Achievement in Career Subjects

Of the 52 students reported enrolled in careers courses, 89 percent achieved passing grades in the fall. Ninety percent of the 100 students enrolled in the spring achieved passing grades. The stated objective was thus surpassed both semesters.

STAFF TRAINING

-- As a result of participating in the project, at the end of the school term, at least 80 percent of the project staff will have participated in staff development activities, in-service training, college credits completed, or workshops offered by the project.

-- As a result of participating in the project, at the end of the school term, at least 70 percent of the project staff will have attended at least one local, regional, or national conference/ meeting dealing with bilingual education, E.S.L., or a related area.

Program staff members attended monthly faculty conferences and monthly meetings held by their respective academic departments. The staff at both schools also attended in-service workshops to improve their professional skills. Workshop topics included integrating content-area materials with E.S.L. instruction, Chinese heritage and culture, and Chinese calligraphy.

Staff members also attended city-sponsored workshops on Chinese heritage and culture, and two staff members took education courses at City College.

PARENT AND COMMUNITY INVOLVEMENT

-- As a result of participating in the project, at the end of the school term, at least 100 parents of LEP and EP students will have participated in program and school activities and functions.

The project director met with the parents' advisory council once each semester to discuss bilingual education and the program's support services,

and to plan program activities. Forty parents attended these meetings at Newtown.

Both schools sponsored career nights. At John Bowne, 40 parents of project students attended; at Newtown, 100 parents attended.

The program also offered four weekly, hour-long E.S.L. classes for adults. The average number of parents per class was 25, and the majority of the parents were Chinese. Only a few Korean parents participated.

CURRICULUM AND MATERIALS DEVELOPMENT

Curricula and materials were developed this year in horticulture in Korean, Chinese, and Urdu, and in teaching science with an E.S.L. approach. A Language Assessment Test for Urdu- and Hindi-speaking students was also developed.

Staff members had developed software for computer-assisted science and were in the process of developing an E.S.L. software package.

SUPPORTIVE SERVICES

The project offered an extensive array of support services for students. Counseling was provided in Chinese, Vietnamese, Korean, and Urdu-Hindi. These services consisted of orientation for new students, academic evaluation three times each semester, personal and academic counseling, and career and college orientation. Home visits, telephone calls, and letters to parents all were used to communicate with parents about their children's academic, attendance, or personal problems. Tutoring also was available for students who needed it.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the observations, interviews, and analysis of student achievement data, it is evident that Project PAN met all of its objectives during its first year of operation. Program students appeared to receive greater educational opportunities than had they not been in the program. The participating LEP students were able to achieve proposed objectives, and in some cases surpassed the objectives in E.S.L., native language arts, and in science, social studies, and career courses. The program's EP students successfully achieved the objectives targeted for their group in English- and second-language courses. In the content areas, the program provided translated curricular materials and tutoring sessions and was developing several computer-assisted learning packages. Curricula were also developed this year in horticulture in Korean, Chinese, and Urdu, and in teaching science with an E.S.L. approach. The bilingual science and social studies courses that were offered at Newtown and John Bowne were most helpful, since most project students spoke very little English. However, students expressed a need for additional bilingual science classes and bilingual social studies instruction at John Bowne, because they could not understand what was being taught in the mainstream bilingual science and social studies classes.

V. APPENDICES

APPENDIX A

Results of the Criterion Referenced English Syntax Test at Newtown

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY Mean	MASTERY S.D.	Mean Mastery Per Month
				FALL				
1	74	14.0	7.4	17.5	6.8	3.5	3.5	1.0
2	45	12.7	6.3	17.0	6.1	4.3	3.2	1.3
3	6	9.3	3.4	11.0	2.8	1.7	1.4	0.5
TOTAL	125	13.3	6.9	17.0	6.5	3.7	3.3	1.1
				SPRING				
1	70	16.3	7.4	19.7	5.8	3.4	3.6	1.1
2	55	13.9	6.7	17.8	6.8	3.9	3.0	1.2
3	9	10.4	1.9	12.0	1.7	1.6	1.3	0.5
TOTAL	134	15.0	7.1	18.4	6.3	3.4	3.3	1.1

APPENDIX A

Results of the Criterion Referenced English Syntax Test
at John Bowne

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY Mean	MASTERY S.D.	Mean Mastery Per Month
				FALL				
1	35	12.7	5.9	17.4	6.3	4.7	3.2	1.6
2	54	16.4	5.5	20.0	4.6	3.6	2.2	1.2
3	37	9.9	2.9	12.0	2.8	2.1	1.4	0.7
TOTAL	126	13.5	5.7	16.9	5.8	3.4	2.5	1.1
				SPRING				
1	11	14.4	5.7	20.0	3.6	5.6	3.9	1.8
2	45	15.1	6.3	18.9	4.5	3.8	2.4	1.3
3	64	11.0	3.0	12.8	2.2	1.8	1.7	0.6
TOTAL	120	12.9	5.1	15.7	4.6	2.9	2.6	0.9